

## Advisory Recommendations from the National EMS Advisory Council

Total Advisory Recommendations since 2008: **50**

- To the National Highway Traffic Safety Administration: **33**
- To the Federal Interagency Committee on EMS: **17**

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**Advisory:** Standardized Certification, Licensure, and Credentialing

**Date Submitted:** April 16, 2009

**Available At:** <http://ems.gov/nemsac/NEMSACEducationWorkforceCommFinalReport2009.pdf>

**National Highway Traffic Safety Administration:**

1. NHTSA is encouraged to continue to support the efforts of adoption and full implementation of the EMS Education Agenda for the Future. NHTSA is strongly encouraged to continue to keep all stakeholders at the table and fully engaged in solving the challenges of implementation.
2. NHTSA is encouraged to continue to assist with the drafting of model legislation to assist States with adoption of all components of the EMS Education Agenda for the Future.
3. NHTSA is requested to provide a regular report card to the National EMS Advisory Council on how implementation of the EMS Education Agenda is progressing across the United States. This effort should include monitoring “pockets of excellence” and make this known to States in order to provide opportunities to benchmark. The report card should also include a summary of issues that are impeding implementation for those states that are not moving forward.
4. NHTSA is encouraged to support research on the Education Agenda for the Future to include the effectiveness of the various types of EMS education systems, their delivery and outcomes.

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**Advisory:** EMS Injury and Safety Data

**Date Submitted:** June 2, 2009

**Available At:** <http://ems.gov/nemsac/SafetyCommitteeFinalReport2009.pdf>

**National Highway Traffic Safety Administration:**

1. The National EMS Advisory Council recommends a NHTSA review of current data definitions relating to EMS illnesses, injuries and deaths, to include definitions contained in MMUCC, ANSI D 16.1, and any other database system recording EMS illnesses, injuries, and deaths.
2. The National EMS Advisory Council recommends NHTSA to encourage and develop relationships between federal and non-federal partners utilizing existing reporting systems to improve

consistency of terminology and access to data sources on EMS illnesses, injuries, and deaths. (i.e. IAFC Near Miss reporting system, Bureau of Labor Statistics, National Transportation Safety Board)

**Federal Interagency Committee on Emergency Medical Services:**

1. The National EMS Advisory Council recommends NHTSA work with FICEMS to assure integration and utilization of EMS illnesses, injury, and fatality surveillance databases across federal agencies.

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**Advisory:** Guiding Principles and Core Issues in EMS System Design

**Date Submitted:** September 29, 2009

**Available At:** <http://ems.gov/nemsac/SystemsCommitteeFinalSystemDesignTemplate2009.pdf>

**National Highway Traffic Safety Administration:**

1. Support a federal effort to expand, enhance, and fund EMS research based on operational, financial, and medical outcomes criteria.
2. Develop and publish key performance indicators (KPIs) for EMS systems to measure and monitor performance. Use NASEMSO Performance Measures document as basis for performance standards.

**Federal Interagency Committee on Emergency Medical Services:**

1. Support a federal effort to expand, enhance, and fund EMS research based on operational, financial, and medical outcomes criteria.

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**Advisory:** Finance Committee Report to NEMSAC

**Date Submitted:** September 29, 2009

**Available At:** <http://ems.gov/nemsac/FinanceCommitteeFinalReport092909.pdf>

**National Highway Traffic Safety Administration:**

1. Support efforts to raise the baseline national ambulance fee schedule to end the discrepancy between cost and reimbursement as identified in the GAO report.
2. The research supports that regionalized, coordinated and accountable systems of care in which EMS plays a critical part results in the best possible clinical outcomes for our patients. We found that these systems of care for STEMI, Cardiac Arrest, Trauma, Stroke and Pediatrics make a

clinical difference. NEMSAC advises NHTSA to utilize whatever governmental entity is best including but not limited to FICEMS, Council on Emergency Medical Care (CEMC) and the Office of Health Care Reform to advance the following system finance recommendations

- A. Ambulance services that provide ALS care for patients whose severity in the field qualifies them to be transported to a specialty emergency care center, for example a Level1 trauma center, STEMI Center or Stroke Center, should get reimbursed at the ALS 2 rate for those patients to adequately compensate for the resource intensity of the services required and full participation in the system of care.
  - B. BLS level providers that transport patients to specialty emergency care centers based on the severity of the patient in the field should be reimbursed at a higher rate to adequately compensate for the resource intensity and participation in the system of care.
  - C. Methods should be developed in advance that will minimize the opportunity to fraudulently up-triage patients in order to enjoy these higher reimbursement rates.
  - D. Evidenced based practice leads to innovations and changes in pre-hospital care often requiring expensive new medical devices or medications that are not part of the existing cost and reimbursement schema in place. CPAP is an example of such an advance that has shown to have very positive clinical outcomes and prevents and reduces hospital stays for patients with pulmonary edema. CMS must institute a process that adjusts payment methodology in a timely fashion once the evidence is in.
3. The issue of treating and referring patients rather than transport and transporting certain sub-acute patients to alternative destinations has been researched and trialed numerous times in many locations and countries. There are several potential advantages from health care cost savings, EMS system efficiencies, reduction of ED overcrowding and building surge capacity of EMS systems during public health emergencies that these capabilities promote. In the current context of health care reform, NEMSAC advises NHTSA to utilize whatever governmental entity is best including but not limited to FICEMS, CEMC and the Office of Health Care Reform to advance the following recommendations as identified in the "EMS Makes a Difference" white paper:
- A. Develop National Guidelines: Using the Evidence Based Practice Guideline Model, NHTSA convene an expert panel to develop national guidelines for treat and refer and transport to alternative destinations.
  - B. Treat, Release and Refer; CMS convene a negotiated rule making committee of stakeholder organizations to develop the relative value units (RVU) for EMS assessment, treatment and referral without transport of certain patients under medically approved protocols and oversight which would include but not be limited to diabetic patients in hypoglycemia and non-transport of non-viable cardiac arrest patients and a host of sub-acute medical conditions.
  - C. Transport to Alternative Receiving Facilities: The prehospital triage and treatment of patients that activate EMS through the 911 system and classified as emergency calls but

are transported to alternative care facilities (i.e. urgent care centers) after evaluation by EMS can be billed at the appropriate level of service (BLS or ALS1).

4. As with any change in a system, changes in clinical practice and reimbursement policy have system impacts. NEMSAC recommends that NHTSA utilize whatever governmental entity is best including but not limited to FICEMS, CEMC and the Office of Health Care Reform to support systems and cost effectiveness research so as to evaluate the efficacy and the economic effect of these recommendations. Such research could develop “Utstein-like” research and reporting criterion for each of the disease states identified as being effectively treated by EMS.
5. NEMSAC advises NHTSA to utilize whatever governmental entity is best including but not limited to FICEMS, CEMC and the Office of Health Care Reform to advance the investigation into models and methods reimbursing EMS systems based on the readiness costs built on an evidence and performance based system design. CMS should be invited to participate meaningfully in this process.

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**Advisory:** Reducing Adverse Events in EMS: Creating a Culture of Safety

**Date Submitted:** September 29, 2009

**Available At:** <http://ems.gov/nemsac/NEMSACOARFinalReport092909.pdf>

**National Highway Traffic Safety Administration:**

1. NHTSA should move forward with a process: Creating a Culture of Safety in EMS. The project should consider:
  - a. A National EMS Patient Safety Conference as a kickoff event
  - b. A Patient Safety Reporting System (National vs. State)
    - i. Consider previous models
    - ii. Firefighter Near-Miss Registry
    - iii. MEPARs
    - iv. Pennsylvania EMS Safety Event Reporting System
    - v. CONCERN Network
  - c. Develop Model Statutory/Regulatory Language regarding EMS Patient Safety
  - d. Defining taxonomy/data dictionary for EMS adverse event reporting
  - e. Create a list of EMS “Never Events”
  - f. Create a toolkit for local implementation of an EMS patient safety program
  - g. Catalog best practices in EMS patient safety
  - h. Create a national strategy for deploying the EMS Culture of Safety
  - i. Deliverable: Creating a Culture of Safety: The EMS Agenda
  - j. Consider sponsoring an Annual Award for Best Practices in Patient Safety

- k. Invite representation from transportation safety experts from FAA and NASA to provide expertise for developing a national patient safety program.

**Federal Interagency Committee on Emergency Medical Services:**

1. FICEMS should adopt the EMS Culture of Safety as a core value and support it in their agency grants, programs and policies.
2. FICEMS should help identify and engage with safety expertise and resources in other Federal agencies. (NTSB, FDA, etc)
3. FICEMS should encourage CMS, in any “value-based purchasing” system they develop for EMS, to include a mechanism to financially reward those EMS programs that have implemented a Culture of Safety throughout their organization.
4. FICEMS should encourage CMS to help EMS providers improve the quality of services they deliver to Medicare beneficiaries, and all patients, by including ambulance services in the Quality Improvement Organizations’ Statement of Work.

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**Advisory:** Emergency Vehicle Operator Education, Training, and Safety

**Date Submitted:** December 13, 2011

**Available At:** [http://ems.gov/pdf/nemsac/NEMSAC\\_Advisory-EVOC\\_Dec2011.pdf](http://ems.gov/pdf/nemsac/NEMSAC_Advisory-EVOC_Dec2011.pdf)

**National Highway Traffic Safety Administration:**

1. The NHTSA should assess the status of emergency vehicle operator training programs (courses) throughout the U.S. This assessment should place special emphasis on ambulance operator training but not exclude programs involving training in operation of non-ambulance emergency vehicles. NEMSAC Safety Committee Final Advisory Emergency Vehicle Operator Education, Training, and Safety 5
2. The NHTSA should conduct a study (or studies) that seek to determine the efficacy and/or effectiveness of emergency vehicle operator training program. Measures of efficacy or effectiveness may include, and are not limited to, individuals trained, ambulance crashes, patient or provider injury and mortality, and costs to individuals and organizations.
3. The NHTSA should produce an action plan for improving emergency vehicle operator education and training. This action plan should be informed by findings from the above recommended nationwide assessment and study or studies.

**Advisory:** The Role of Leadership in EMS Workplace Safety Culture

**Date Submitted:** December 14, 2012

**Available At:** [http://ems.gov/pdf/nemsac/dec11/Advisory\\_on\\_Leadership-Safety\\_12142011.pdf](http://ems.gov/pdf/nemsac/dec11/Advisory_on_Leadership-Safety_12142011.pdf)

**National Highway Traffic Safety Administration:**

1. The NHTSA Office of EMS (OEMS) should address the role that leadership plays in creating and maintaining a positive workplace safety culture. NHTSA should consider augmenting existing efforts (e.g. the EMS Safety Culture Project) by developing and disseminating an implementation guide (a companion document) for EMS leaders. Such a companion document will complement the national Safety Culture Strategy by outlining specific tools and resources that leaders and managers could leverage in their pursuit of improving EMS safety culture. The guidebook may provide guidance on how leaders and managers could evaluate their own workplace safety culture, how they can compare their findings to peer organizations, and how organizations can respond to findings.

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**Advisory:** The Next Steps for Prehospital Care Evidence-Based Guidelines

**Date Submitted:** May 30, 2012

**Available At:** <http://ems.gov/nemsac/MedicalOversightResearchCommittee%20Advisory-NextStepsPrehospitalGuidelines.pdf>

**The National Highway Traffic Safety Administration:**

1. The NHTSA should lead the effort in forming relationships with stakeholder organizations and academic journals in order to hasten the process of publishing EBGs. This relationship would be similar to the relationship the American Heart Association has with the journals Circulation and Resuscitation. Second, organizations developing EBGs should form partnerships with EMS organizations, State and local EMS agencies, as well as EMS provider agencies in order to assist in decreasing the time to implementing EBGs in the field. Such organizations should also develop implementation toolkits or training curricula to ensure that the EBG is incorporated into providers' clinical practice.
2. As the national EMS education standards are revised and reviewed, the NHTSA should take into account existing standards on EBGs and make efforts to implement such standards into EMS education.

**The Federal Interagency Committee on Emergency Medical Services:**

1. The FICEMS should work in coordination with the NHTSA, the National Institutes of Health (NIH), the National Quality Forum (NQF), and the Agency for Healthcare Research and Quality (AHRQ) to seek means to further the implementation of the strategies presented in the National EMS

Research Agenda, specifically the recommendations on defining prehospital patient outcome measures, promoting the training of EMS researchers, and creating funding sources specifically for EMS research, in order to increase the quantity and quality of EMS research and expertise, thereby supporting the development of EBGs. EBG development depends on a solid resource base of scientific prehospital research and EMS expertise in the subject matter areas being investigated. The National EMS Research Agenda details specific strategies to promote research in EMS and to train credentialed EMS clinicians and professionals in research that would indirectly support the development of EBGs.

2. The FICEMS should work with NHTSA, AHRQ, and other member agencies to create Center(s) of Excellence for EMS EBG development. Center(s) of Excellence should serve to ameliorate the challenges of sustaining EBG development amidst resource and time constraints as well as a steep learning curve to developing EBGs. The specific responsibilities of Center(s) of Excellence might be to provide supporting mechanisms to make the process of developing EBGs more efficient as well as to train stakeholders in EBG development.
3. The FICEMS in partnership with the NHTSA and AHRQ should work to make the process of developing EBGs more efficient by creating supporting mechanisms, such as a registry of current EBG efforts with prehospital relevance occurring anywhere in the world as well as a warehouse of evidence syntheses and appraisals. To build capacity in EBG development, the NHTSA should develop training workshops and resources to build expertise in the EBG development process. The EBG development process is very time and resource intensive, making it difficult for many communities to use to develop local guidelines de novo.
4. The FICEMS, the NIH, and the AHRQ should request that its member agencies and departments incorporate mechanisms to sustain the National EBG Model Process into Federal grant guidance language. Such mechanisms should specify that the National EBG Model Process be used when distributing funds for protocol development and that an applicable EBG be used for grants related to protocol implementation.
5. The FICEMS should sponsor a regularly-held EBG Scientific Assembly. This assembly should bring together practitioners and academic EMS professionals to network on the EBG Model Process, to determine best practices for developing and implementing EBGs, to prioritize EBGs for future development, to identify research gaps in prehospital care, to acknowledge excellence in prehospital research, and to develop strategies for overcoming barriers that the culture of EMS presents to disseminating and implementing EBGs. The Scientific Assembly should have workshops to assist novice EBG investigators learn how to use the National EBG Model Process and the GRADE methodology in order to build capacity for EBG development.

**Advisory:** Evidence Basis for EMS Systems Design

**Date Submitted:** May 31, 2012

**Available At:** <http://ems.gov/nemsac/SystemsCommitteeAdvisoryonEBGsforSystemDesign.pdf>

**National Highway Traffic Safety Administration:**

1. NEMSAC recommends that the National Highway Traffic Safety Administration continue with its existing “EMS Typology” project and report back to NEMSAC on the results of the nationwide survey of EMS systems.
2. NEMSAC recommends that NHTSA convene a working group of EMS experts, charged with reviewing the evidence and typology and establishing a framework to consider the evidence basis of EMS system design.
3. NEMSAC recommends that NHTSA embark on a project, using the framework document produced in Recommendation #2, to establish an “EMS Systems of the Future” document to provide medical, operational, administrative and financial guidance to EMS systems in the United States.

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**Advisory:** EMS System Performance-based Funding and Reimbursement Model

**Date Submitted:** May 31, 2012

**Available At:** <http://ems.gov/nemsac/FinanceCommitteeAdvisoryPerformance-BasedReimbursement-May2012.pdf>

**National Highway Traffic Safety Administration:**

1. NHTSA, in coordination with FICEMS, should sponsor a comprehensive EMS System Design project that will identify the essential components and functions of EMS systems, standardize terminology, and establish performance standards for minimum levels of service.
  - a. Criteria for the EMS Systems Design project should include the factors listed in the pathway described in Conclusion 2.
  - b. EMS-specific performance standards must also consider and evaluate patient *access* to emergency medical services standards in the following four categories: 1) quality of care, 2) timeliness of care, 3) supply of care and 4) barriers to care. The following factors must be taken into account: 1) the prudent layperson definition of emergency; 2) local and state mandates to respond and transport without regard to patient’s insurance status or ability to pay; 3) local, state, and national EMS personnel standards, medical protocols and medical control regulations.



- c. **Goal Statement:** The project will accomplish the first three steps in the pathway and will develop a baseline for minimal levels of essential service in which to base a comprehensive EMS System Finance study (Recommendation 2).
2. NHTSA, in coordination with FICEMS, should sponsor a comprehensive EMS System finance study that accounts for all costs and revenues and includes the following:
  - a. EMS System Components. EMS System costs to be determined by calculating the dollars to achieve minimum performance standards for each component of the EMS system as defined in the EMS System Design project.
  - b. Total EMS System Costs. The cost components will use EMS functions at a granular enough level to adequately reflect true system costs regardless of EMS system design.
  - c. Cost of Readiness. NHTSA and FICEMS should adopt the IOM's definition for cost of readiness and ensure that accounting for that cost is included in the EMS finance study.
  - d. Finance Models. Models should address both current and proposed future cost and revenue potentials.
    - i. Finance models must evaluate the cost of EMS functions, potential funding streams from the various disciplines, and the Return on Investment (ROI) of EMS on the health care system, public health systems, public safety system, and emergency medical preparedness system.
    - ii. Finance models must specifically address direct and indirect grant, tax, and user fee funding sources.
    - iii. Finance model should also establish EMS-specific definitions of charity care and uncompensated care for both policy and tax purposes as described on pages 12-15 (Review of Healthcare financing of the EMS Safety Net) and calculate the total uncompensated care costs incurred by the nation's EMS System. It will identify sources for funding the current significant uncompensated care burden carried by EMS Systems in order to transition away from shifting the cost of this care to commercial insurers and other payers.
      1. A project deliverable would include a template to calculate the financial impact (and other considerations) to upgrade the currently provided service to the minimum standards or beyond the minimum standards when advancing the EMS system's scope of service. Examples include: BLS to ALS Level of Service, treat without transport options, alternative response considerations, STEMI and stroke programs, the use of CPAP and other new treatment options, community paramedicine, population health, and hospital/ED readmission abatement initiatives. The template should also calculate potential downstream savings to the healthcare system to help the EMS System determine cost versus benefit.
    - iv. Given the limited feasibility of altering the Social Security Act and the unique role of EMS Systems in patient outcomes management, the study should include a shared savings model related to EMS performance enhancement and

improved patient outcomes, while preserving the existing funding for the transport system, utilizing existing Medicare and Medicaid authorities.

1. Deliverable: Healthcare is funded by many different mechanisms with the federal government. The recommendation would include an analysis of existing health care payment models to determine if another payment process would better serve EMS for representative and readiness costs for providing EMS. The recommendation would also serve as the basis for developing a template for a shared saving model for EMS and other health care plans for services provided by EMS that result in downstream health care savings and reducing uncompensated care by the health care system. Shared savings to the health care system would be partially or completely re-invested back into EMS to further develop or expand their cost saving programs.

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**Advisory:** Fatigue in Emergency Medical Services

**Date Submitted:** January 30, 2013

**Available At:** <http://ems.gov/pdf/nemsac/2013/NEMSAC-AdvisoryFatigueJan2013.pdf>

**National Highway Traffic Safety Administration:**

1. The NHTSA Office of EMS (OEMS) should cross-validate findings from studies and reports of fatigue in other professions with that of fatigue in EMS. This effort should involve a convening of subject matter experts, individual providers of EMS services, and representatives from local, state, and federal organizations, national organizations (e.g., NAEMT, NAEMSP, NASEMSO) that play a role in EMS oversight or care delivery. The effort should clarify the evidence linking EMS provider fatigue and safety and health outcomes of patients, providers, and the public. The effort should include an analysis of regulatory requirements of the employer and employee and legal framework with respect to the threat of fatigue on safety.
2. The NHTSA Office of EMS (OEMS) should work through its federal and non-federal partners to address the lack of a standardized method for investigating the role of fatigue in ground and air-medical crashes, clinical errors, and provider injuries. This effort may include developing a valid and reliable measurement tool and check list for investigators.
3. The NHTSA Office of EMS (OEMS) should disseminate (evidence-based) information to the EMS community to aid development of fatigue management programs / interventions to fit local needs.

**Advisory:** NEMSIS: Achieving its Full Potential for Advancing Healthcare

**Date Submitted:** January 30, 2013

**Available At:** <http://ems.gov/pdf/nemsac/2013/NEMSAC-FinalAdvisoryNEMSIS.pdf>

**National Highway Traffic Safety Administration:**

1. NHTSA should identify and categorize existing EMS performance measures, particularly those that utilize NEMSIS compliant data, and make them available from a central repository. Such efforts should combine/compile existing performance measures, adding measures that are more easily captured with data compliant to NEMSIS V3 such as time sensitive conditions. Examples of how national and professional organizations could use and assess each performance measure should be provided.
2. NHTSA should develop mechanisms to assist State EMS Offices and local agencies in employing NEMSIS performance measures. These could include an EMS quality improvement and performance measure guidelines, a series of standardized reports, or report cards, with a focus on quality and outcomes and characterize clinical success, procedure success, areas for improvement, and patient status upon ED discharge (i.e., outcomes). There could also be provided technical benchmarking guidelines for software/database/report developers that facilitate the use of state and national information to be compared with local data.
3. NHTSA should identify barriers to the real time surveillance of local and state EMS data (i.e. dashboards) to be used for quality improvement and compliance with NEMSIS.
4. NHTSA should build upon this document to further develop and publicize a vision for utilizing NEMSIS for healthcare system improvements and research, including best practices for implementation, collection, and further utilization of EMS data, highlighting successful programs/attributes of state systems that are integrating EMS data to serve local and state public health and public safety needs.
5. The NHTSA should identify the necessary knowledge, skills, and abilities for EMS systems staff to adequately and properly collect NEMSIS compliant data, analyze these data, and develop meaningful and actionable outputs.

**The Federal Interagency Committee on EMS**

1. FICEMS should lead the effort in supporting and establishing technical and political solutions that encourage and enable state and national datasets (i.e., healthcare, traffic, public health) to be “linked” with NEMSIS-compliant data to enrich the descriptions and to understand the determinants of “healthcare events” experienced by individual patients or related to disaster situations.

2. FICEMS should support the development of administrative and political (e.g., sample state legislation) strategies that facilitate the use of NEMSIS data in public health/ public safety surveillance.
3. FICEMS should work with member agencies to revisit opportunities for incorporating language into federal grant guidance that aligns with the FICEMS position statement set forth in 2008, calling for federal funding to support the establishment and development of NEMSIS compliant information systems in addition to the transition to NEMSIS V3.
4. FICEMS should work with its member agencies to ensure the use of the NEMSIS data standard in the development of EMS related performance measures for reimbursement.
5. FICEMS should work with its member agencies to utilize NEMSIS data and information systems to respond to the Gap Analysis of EMS Related Research, as well as to achieve program objectives when developing strategic direction or grant guidance related to emergency care topics, including preparedness and mass casualty incidents.

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**Advisory:** Planning for Leadership Assessment and Development in EMS

**Date Submitted:** May 17, 2013

#### **National Highway Traffic Safety Administration**

1. The Department of Transportation should commission a study designed to obtain information and answer the following questions:
  - How to identify the various components of EMS leadership across a broad spectrum of providers, within a commonly accepted nomenclature structure (for example, operations, clinical, administrative, financial, etc.).
  - How to measure and assess the quality of EMS leadership provided against quantitative benchmarks within each category of the standardized nomenclature structure.
  - How the measured quality of EMS leadership provided within each category affects key indicators such as patient clinical outcomes, provider satisfaction, employee retention, financial performance/stability, etc.

#### **The Federal Interagency Committee on EMS**

2. The Department of Transportation and FICEMS should sponsor a leadership summit convening a representative selection of EMS stakeholders and innovative leadership experts to produce a compendium of best practices in EMS leadership development and practice, which can be cataloged and made accessible to the EMS community.